SECTION 1: INTRODUCTION

Background:

The FAA Act provides the FAA with the authority to publish regulations to correct unsafe conditions. When the FAA identifies an unsafe condition on a certificated product, an Airworthiness Directive (AD) is issued to correct the unsafe condition in accordance with 14 CFR Part 39. The unsafe condition may or may not result from the product's failure to comply with the applicable regulations defined in the Certification Basis. In fact, AD's occasionally impose safety requirements, beyond the scope of the product certification basis or current Federal Aviation Regulations (FAR's), that are determined to be necessary by the FAA's discretionary judgment.

Upon identification of an unsafe condition in a product, an intense joint effort involving the FAA and the Type Certificate Holder (TCH) is initiated to correct the unsafe condition. The corrective action may involve either inspections, modifications or other actions within a specified time period (compliance time). In most cases, a TCH issues a Service Bulletin (SB) which contains the required corrective action. The FAA Aircraft Certification Office (ACO) responsible for continued airworthiness of that product follows the TCH's action with the preparation of an AD mandating the accomplishment instructions contained in the SB. Issuance of an AD on a particular component heightens the awareness of the identified unsafe conditions, requiring special handling of all future repairs and modifications, which may interfere with the mandated corrective action and the continued safe operation.

When an operator of a product subject to an AD finds it necessary or desirable to deviate from the requirements of an AD, the operator is required to submit a request for approval of an alternative method of compliance (AMOC) in accordance with provisions contained within the AD. These deviations have typically included alternative inspection methods, repairs, modifications, and adjustment to the compliance times. Historically, AMOCs have been referred back to the ACO for approval. This was necessary because the Federal Aviation Administration (FAA) has previously not authorized Designated Engineering Representatives (DERs) to approve any deviations to Airworthiness Directives (ADs). This policy was based, in part, on section 314 (a) of the FAA Act of 1958 which provides for the Administrator to delegate to any properly qualified person any work, business, or function respecting (1) the examination, inspection, and testing necessary to the issuance of certificates under Title VI of the Act, and (2) the issuance of such certificates in accordance with standards established by the Administrator. Thus, while the Act allows the FAA to delegate to DERs the findings of compliance to known, defined, and published standards established by the FAA, such as 14 CFR Parts 23, 25, 27, 29, 33, and 36, leading to the issuance of certificates, the act does not permit the FAA to delegate discretionary determinations of acceptability, such as those involved in approving deviations from ADs.

A number of FAA/Industry initiatives such as those dealing with aging aircraft along with a growing number of in-service aircraft have resulted in a substantial increase in the

number of AMOC requests and a corresponding increased workload for the cognizant ACOs, TCHs, and operators. Many of these AMOCs have been for relatively minor deviations to mandated instructions.

In order to respond to the growing number of AMOCs without compromising safety and customer satisfaction, ACOs in conjunction with the TCHs' Designated Engineering Representatives (DER's) have developed various processes for review and approval of AMOC requests. Although those processes have been working well they are designed to address relatively minor deviations and are not sufficient in dealing with increasing number of AMOC requests.

In addition, the existing processes for an AMOC request and approval involve coordination and communication among the applicant, Principal Maintenance Inspector, ACO, and TCH. Within each of the offices involved, there exist additional coordination processes. There have been cases that have resulted in delays in the approval of an AMOC request due to the inefficiencies of the processes involved.

An FAA/Industry Working Group (hereafter referred to as the AMOC team) was formed to review existing processes and find ways to improve them. The AMOC team's objectives were as follows;

1) Improve the timeliness of issuance of AMOC approvals
2) Maintain the same level of safety under the existing system
3) Reduce the need for AMOC while maintaining legal enforceability of the ADs
4) Standardize the process for issuing AMOCs throughout the FAA
5) Accomplish the foregoing in a cost effective manner for industry, and without increasing the need of FAA resources

The AMOC team has completed the assigned tasks and has developed a series of recommendations, which if implemented will satisfy the objectives. The recommendations developed address various processes to provide more delegation to the TCHs with appropriate oversight and improved coordination during early development of SBs and ADs. This report, developed by the team, documents how the team reached consensus in formulation of the recommendations and provides detailed justification and supporting data for those recommendations.

AMOC Team Membership and Charter:

The initiative to form a team to improve issuance of AMOC approvals, was introduced by the FAA Aircraft Certification and Flight Standards Services management and supported by the Air Transport Association (ATA), Regional Airlines Association (RAA), Aerospace Industries Association (AIA).

In developing the AMOC team charter, attempts were made to ensure that the interested industry groups are represented on this team. In order to reflect the interests of all major stakeholders the following team composition was included in the team charter;

ATA airlines 2-3
RAA airlines 1
Aircraft Certification Offices 2
Flight Standards Services 2
Regional Counsel 1
AIA manufacturers.....1

In addition, two linking members to the oversight management team were also identified. The identification of the members was left up to the participating organizations.

In June of 1994, the AMOC team's charter was finalized and the team members were identified. The RAA elected not to participate and was satisfied with the representation of the ATA on the AMOC team. The AMOC team charter as originally defined is included in Appendix 1.

The first meeting of the AMOC team took place on August 2, 1994, at the ATA headquarters in Washington D.C. The entire team membership, including the linking members were present. During this meeting, concerns were raised by certain team members that the team charter may be in violation of the Federal Advisory Committee Act (FACA). Under FACA any team formed with the intent to make recommendations to a government agency must go through the process of notifying the public and provide the opportunity for all interested parties to attend the meetings. The team agreed to investigate the possibility of being chartered under the Aviation Rulemaking Advisory Committee (ARAC) to prevent potential complications which may occur during the implementation of the recommendations. Further, the team agreed to continue its work while certain members pursued the ARAC option. This in effect required opening the membership of the group and effectively altering the final composition.

During the September 7th and 8th meeting, the AMOC team was informed that the team will be chartered as an ARAC working group reporting to the Transport Airplane and Engine Issue Group (TAEIG). During this two-day meeting, the team drafted a letter outlining the objectives of the team which was used to officially request the formation of the team. On January 20, 1995, the team's charter was published in the Federal Register notifying the public of the formation of the team under ARAC and providing a description of the charter and the team's objectives. A copy of the published notice is included in Appendix 1.

The final membership of the AMOC team was as follows;

ATA airlines

Mr. David Lotterer, ATA (Working Group Chairman)
Mr. Donn Knight, United Parcel Services (UPS)
Mr. Gregg Delker, USAir
Mr. Paul Atwell, Northwest Airlines (NWA)

AIA manufacturers

Mr. Edgar Kupcis and Mr. Herb Lancaster, Boeing Company, Seattle, Washington.
Mr. Amos Hoggard, Douglas Aircraft Company, Long Beach, California.

FAA

Mr. Ali Bahrami, Los Angeles Aircraft Certification Office (LAACO), ANM-100L
Ms. Maureen Moreland, Airframe Branch, ANM-120L, LAACO
Mr. Steven Fox, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office (SACO)
Mr. Tim Dulin, Standardization Branch, ANM-113, Transport Airplane Directorate
Mr. Douglas Anderson, Office of Assistant Chief Counsel, Northwest Mountain Region, ANM-7
Mr. George Soteropoulos, Technical Programs and Continued Airworthiness Branch, AIR-120
Mr. William Rau, Long Beach Aircraft Evaluation Group (LGB-AEG)
Mr. Lonnie Giles, Phoenix Certificate Management Office (PHX-CMO)

Organization of Report:

The remainder of this report documents the process and findings of the AMOC team. It is organized in five major sections;

Section 2: Team Process: This section briefly describes the process through which the AMOC team analyzed various issues and developed recommendations based on the results of the analyses.

Section 3: Classification of the AMOC Issues: The team identified a series of issues/problems. They were then categorized into four groups and were addressed collectively. This section describes the different categories and provides the foundations for the recommendations. Additionally, during the analysis of the AMOC requests, it

became evident that although temporary structural repairs are common, guidelines and their applications vary. As a result the team defined some specific guidelines for evaluation of the repairs of components that are subject of an AD. This section presents those guidelines which must be in place prior to delegation of AD related temporary repairs to the TCH structural DER's.

Section 4: Conclusions and Recommendations: The section of the report presents the AMOC team's conclusions and recommendations.

Section 5: Delegation Implementation Plan: The AMOC teams' recommendations in the delegation area, if implemented, introduce new processes and handling of the AMOC's approved by the TCHs' DERs. To ensure a smooth transition and facilitate implementation, the team has developed an implementation plan, which is included.

Appendices: There are four appendices which contain the AMOC team's charter, a draft Notice concerning expansion of TCH DER's authority to approve AMOC's, a guidance material concerning the PMI's role in light of the new delegation policy and an AMOC information request checklist, respectively.